

WRITERS OF THE STORM

WFO PUEBLO / SOUTHEAST COLORADO NEWS

VOLUME 3

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OCT 2013 – MAY 2014

Safety Spot:

*** Turn Around—Don't Drown**

*** Drive safely, rest often if traveling.**

*** Are you fire-ready?**

*** Flash Floods happen quickly.
Know the local conditions.**

*** When thunder roars..**

Move Indoors!

It's been a few months since we posted our activities for your perusal, so it's time to catch up. Last fall, once the rains and flooding stopped and the damage was assessed, we started looking for the snow to fall and cover the damage that had been done. While we watched, and waited...and waited, the snow held back just enough to make us wonder if this would be another critical snowless year. Finally, the snow began, and for some areas, didn't stop until they were 138% above normal, as noted through the mountain areas near Longmont and Boulder.

After the new AWIPS 2 upgrade, we were busily visiting our Coop and Climate stations and conducting Spotter training workshops, while in the office the staff is closely watching the spring and summer weather patterns on the burn scars; snow melt in the rivers, thunderstorms that decide to stall over the area and temperatures that swing from 60F on day to 90F the next. Weather can change quickly this time of year, and WFO Pueblo is ready for the challenge.

Severe Weather/Fire Weather Workshop 2014

This year, the Annual Severe Weather Workshop was held in March. It was well attended by members of the TV media and USAF personnel from Fort Carson, as well as employees of the WFO Pueblo.

On the agenda this year were discussions about land spouts and Flash Flood Warnings, along with a refresher on GR2 analyst, a NOAA program used by the WFO Pueblo. Invited guests Carol Ekarius and Theresa Springs from CUSP, presented a detailed update on the mitigation efforts that had already taken place on the Waldo Canyon Burn Scar, which was a big benefit to the WFO, knowing what had taken place and what changes were in store for the upcoming severe weather season. In addition, Paul Wolyn, the Science and Operations Officer, reviewed the 2013 Flash Flood for the Waldo Canyon area and the September Flood that took place.

This annual training is beneficial to all participants in strengthening partnerships, understanding relationships and operations of each agency and building a cohesive workplace environment.

3RD ANNUAL "GIRLS IN THE MIDDLE" CONFERENCE - TRINIDAD STATE JUNIOR COLLEGE

Hosted by Trinidad State Junior College, the goal of this one-day conference is to bring 6th, 7th and 8th grade girls (Middle School girls) from throughout southeastern Colorado and northern New Mexico regions together in exploring careers that require engineering, math, science, technology and technical education. Last year, approximately 100 girls attended the conference from throughout Las Animas, Huerfano, Union, and Colfax Counties. This year they returned to participate in a another fun-filled, exciting and educational day.

Jennifer Stark (MIC), Kathleen Torgerson (Sr. Met) and Peggy Perales (HMT) from WFO Pueblo had the honor of representing the National Weather Service (NWS) during the afternoon session this year. After a brief introduction of the NWS during which Jennifer, Kathleen and Peggy each introduced themselves and talked about their respective careers; the students divided into 3 groups to participate in 20 minute sessions that included a hands on presentation with each NWS employee.

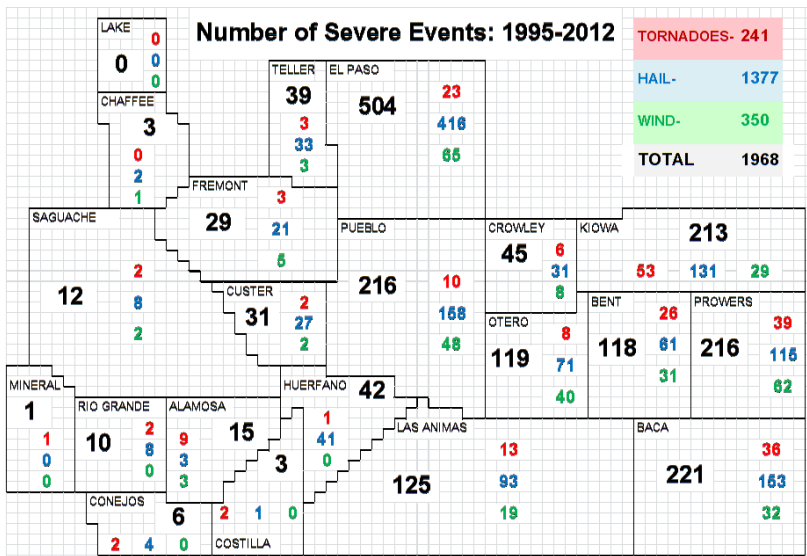


Jennifer electrified the audience with the Lightning ball, and its electric neon attractions while Kathy fired up the crowd by popping clouds out of bottles with varying hydroscopic particles. Peggy flowed through the afternoon with "Air as a Fluid" creating carbon dioxide for a visual effect of our fluid atmosphere.

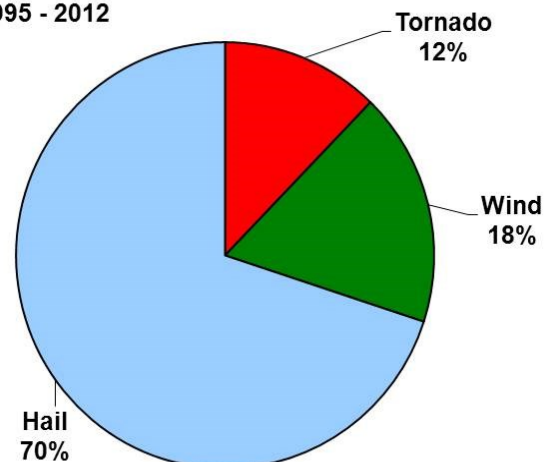
At the end of the fun, and information filled day, the students had fun, we had fun and the only items that exploded were the ones designed to do so!



Summer begins...and Severe Weather and Fire Danger moves to the forefront of everyone's mind.



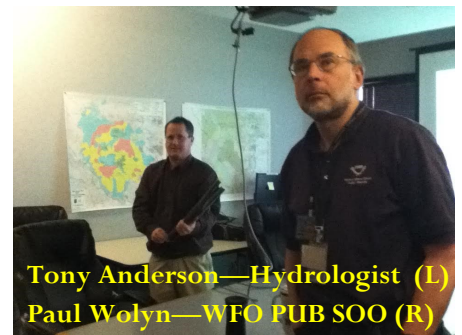
1995 - 2012



Arkansas-Red Basin River Forecast Center

The Arkansas-Red Basin River Forecast Center (ABRFC) is one of thirteen River Forecast Centers in the National Weather Service. The ABRFC provides technical support to the National Weather Service's efforts to provide river and flood forecasts and warnings for protection of life and property and to provide basic hydrologic forecast information for the nation's economic and environmental well-being. The ABRFC area of responsibility includes the drainage area of the Arkansas River above Pine Bluff Arkansas and the drainage area of the Red River above Fulton Arkansas and comprises over 208,000 square miles, including portions of seven states.

Bill Lawrence (Hydrologist in Charge) and Tony Anderson (Hydrologist) from the ABRFC stopped by the WFO to visit in April. They had the opportunity to sit down with the staff of WFO Pueblo, and visiting hydrologist Treste Huse (WFO Boulder/Denver) and explain what they



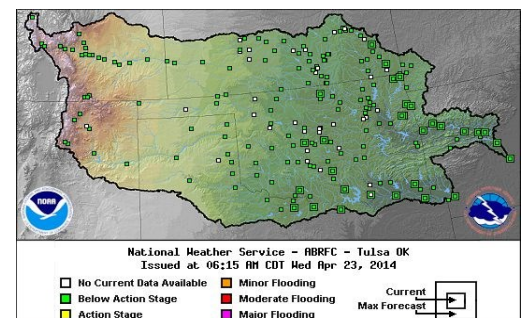
Tony Anderson—Hydrologist (L)
Paul Wolyn—WFO PUB SOO (R)



do, and why they do it, in regards to the hydrology products that we use daily in Colorado. Having this first hand glimpse into the workings of the River Forecast Center, and being able to ask pointed questions about the processes involved was invaluable to understanding the products for the staff and also in explaining the products to our customers.

Knowing what the ABRFC is looking at/for, and how we can assist each other, is another link in the chain toward improving products and forecasts for both the ABRFC and the WFO, and ultimately the safety of the customer.

ABRFC Webpage: <http://www.srh.noaa.gov/abrfc/>



SCIENCE DAY AT FOUNTAIN INTERNATIONAL MAGNET SCHOOL,

PUEBLO

It was a sunny, quiet day, as we sipped our coffee and partook in the buffet breakfast that was provided...until 8:30am when 325 Kindergarten through 3rd grade students were unleashed for Science Day 2014 at the Fountain International Magnet School in Pueblo.

The public run school, with students admitted through a lottery system, came up with the idea for the science day for their students, as the Discovering Water in Pueblo Science day, is geared for 9-11 year old students (primarily 4th grade).

Peggy Perales was the NWS/WFO Pueblo representative at the event, which was the first time the NWS had participated. With grades ranging from K-3rd, it was a challenge to find a topic that could be related to all students at a level they would understand. Luckily, the day went smoothly, and through the 13 20-minute presentations, the students were engaged and came up with lots of questions about clouds, lightning, rain, hail and other meteorological phenomenon based on their respective curriculum.



From popping clouds in bottles and talking about cloud formations, to lighting bulbs with the lightning ball, the students and teacher participants learned about how the atmosphere works and the different ways it benefits us on a daily basis. They also discussed lightning safety, Flash Flood Safety and general weather safety.

From soothing the storm fears of the kindergarten students, to the lively discussions with the 3rd grade students, all in all, it was a great day, and lots of fun for everyone. Definitely an must-do, when we are asked to return.

Discovering Water in Pueblo (DWIP) 2014

Tuesday, May 6th, 2014 was a dry and breezy day and it was all about WATER, as the nearly 1,900 9 to 11-year-old students from Pueblo City Schools (D60), District 70 and four private schools converged on Colorado State University Pueblo for the 16th Annual Children's Water Festival.

The festival, a popular medium for interactive education in water conservation, teaches the water cycle, ground water, non-point-source pollution, irrigation, water sources and uses and other important water related topics.

Water professionals come from up and down the Front Range to teach children why water is important and what it means to Colorado. Sponsored by Reclamation, the Southeastern Colorado Water Conservancy District, Board of Water Works, Pueblo, St. Charles Mesa Water Association, Pueblo West Metropolitan District, and Colorado State University, Pueblo; they all come together to make DWIP a reality.

Peggy Perales was the NWS representative for the day, with a presentation on "Water is all Wet", discussing the water cycle and effects water has on our daily lives, impacts on agriculture and seasonal changes for the region, in addition to "How Water Measurements are made" and "Measuring the Atmosphere". The day consisted of 5 presentations, of about 20 to 25 minutes, for each group that came through the rotation.

"It was great fun, interacting with other professionals in the area, having fun and getting to know everyone. Definitely a must do, if you are in the area".



San Luis Valley Science Fair 2014

Kyle Mozley, General Forecaster at WFO Pueblo, had a chance to travel to the San Luis Valley, on the west side of the County Warning Area, and participate as a judge in the Annual Science Fair. I asked Kyle how his trip went and this is what he had to say:

"I had a blast down at the San Louis Valley Science Fair the past couple of days. They were very happy to have us back after a few years of not being able to go, and really hope we can make it down for next year's fair."



I was judging the Earth Sciences section (they had many categories...biology, chemistry, physics, medicine, etc.) and participated in judging elementary through high school exhibits. There were other professionals, professors, and students acting as judges as well.

For the most part, the students were very into their projects, however, there were a few that you could tell were forced to do a project. Most had a firm understanding of their project and were looking forward to carrying on further research.

Of the winners of the high school Earth Sciences...two were on the West Fork Complex...one dealing with water quality and the other working with soil erosion mitigation. Both were exceptionally well done. The third place finisher was working on bacteria growth in agricultural wells in the valley and ways to eliminate the problem...again well done.

The middle school and elementary school kids all had good projects ranging from rock weathering, ice depth on lakes and even how music influences rock crystal candy growth (not much of an influence there!). Most of the kids were not afraid to talk and discuss their projects and were honest with answers they didn't know. If you ever get a chance to participate, I recommend it! It really was a good time! "



It's always great fun to see the budding scientist of tomorrow and what they can come up with, when left to their own imagination. We look forward to seeing what they come up with next year.

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DataStreme Atmosphere Science Class

(<http://www.ametsoc.org/amsedu/DataStremeFrames.html>
Education)

DataStreme Atmosphere is a major precollege teacher enhancement initiative of the American Meteorological Society with the main goal of training of Weather Education Resource Teachers who will promote the teaching of science, mathematics and technology using weather as a vehicle, across the K-12 curriculum in their home school districts. The 13-week course is offered twice a year to selected participants. It focuses on the study of the atmospheric environment through the use of electronically transmitted weather data and learning materials combined with Study Guide readings and investigations. Teachers are mentored by a Local Implementation Team (LIT) consisting of at least one master precollege teacher and most include one professional meteorologist.

In Pueblo, the Local Implementation Team consists of Paul Wolyn (Science and Operations Officer) and Makoto Moore (Incident Meteorologist/General Forecaster). Paul and Makoto have been working with the current participants for 13 weeks, culminating in a tour of the National Weather Service Office and small celebration of completion.

Congratulations to the participants of the Class of 2014,. We all wish you the best of luck in your future career path.

For anyone interested in participating in the class of 2015; instructions on applying and contact information can be found at:

<http://www.ametsoc.org/amsedu/dstreme/extras/leaders.html>.